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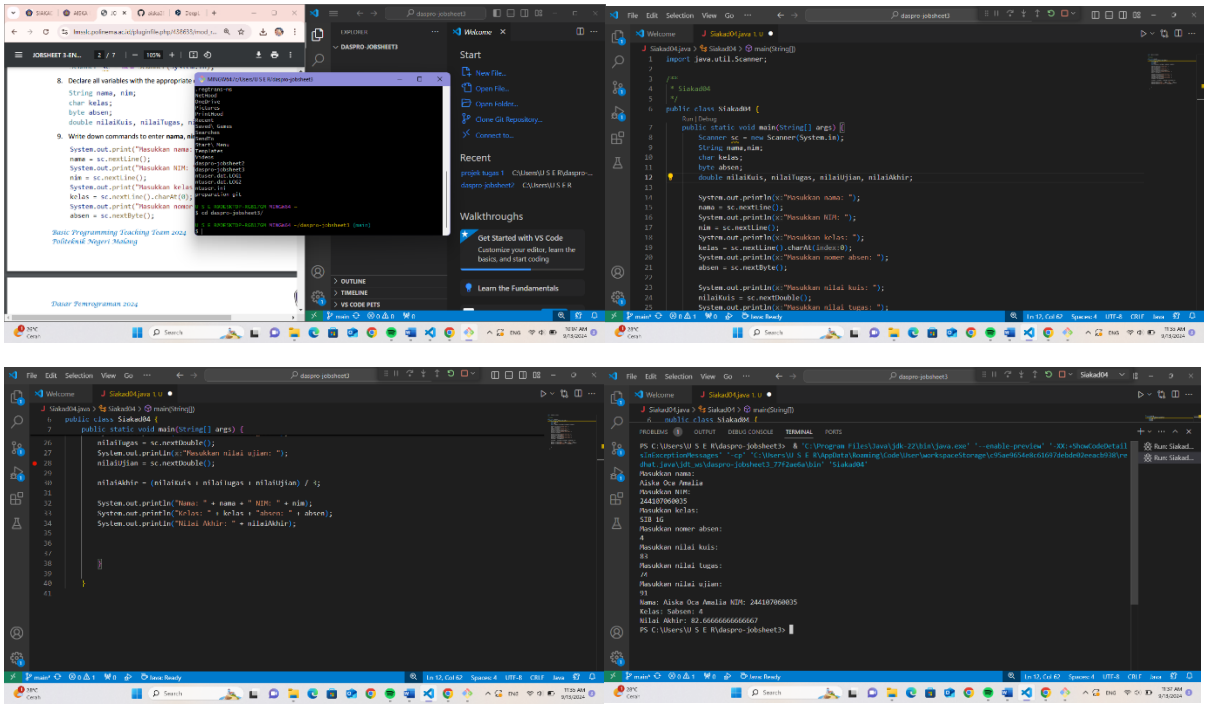
Class : SIB 1G

JOBSHEET 3

2.1 Experiment 1: Case Study of Filling Student Grades at SIAKAD



2.1.3 Question

1. Why are the data type double used for nilaiKuis, nilaiTugas, and nilaiUjian? What happens if you use the int data type?

Answer: The double data type is used for decimal numbers. if we use the int data type the system we run can run but there will be missing numbers

2. Explain the meaning of the following program code!

```
Kelas = sc.nextLine().charAt(0);
```

Answer: This program code is useful for entering more than one character

3. Explain why the Scanner declaration is necessary?

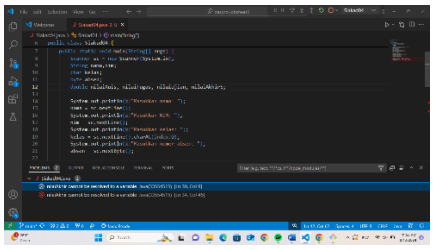
Answer: scanner declaration is needed so that we can custumase a program according to what we want to enter.

4. If the data in the class entered is equipped with the study program, for example **SIB 1G**, then what type of data should be used? Customize the program code!

Answer: we use the program code charAt(0), in order to be able to enter more than one character.

5. Change the naming of the **nilaiAkhir** variable to **nilai-AkhirS**, compile and run the program! What are the results? Why is this the result?

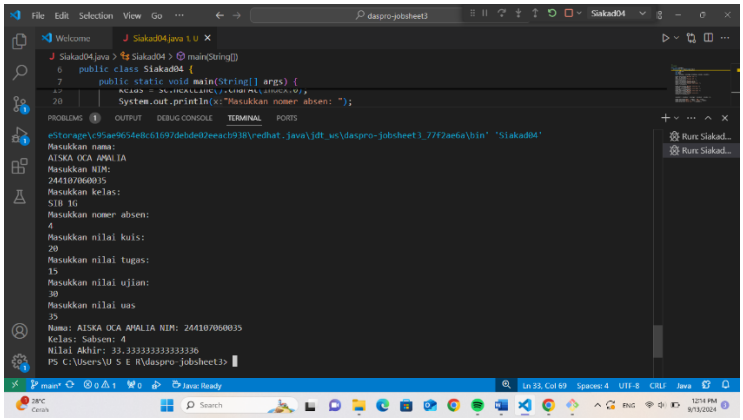
Answer:



by adding S to the final value, there will be errors because it does not match the specified variable.

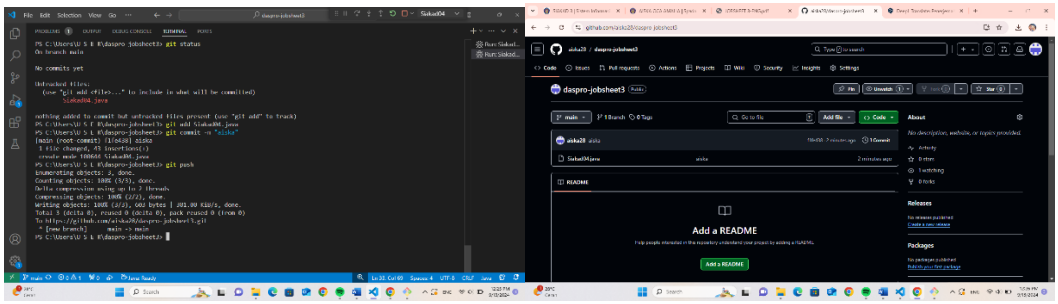
6. Modify the program code so that there are four component scores that are included to calculate the final score, namely quiz scores with a weight of 20%, assignment scores with a weight of 15%, UTS scores with a weight of 30%, and UAS scores with a weight of 35%!

Answer :

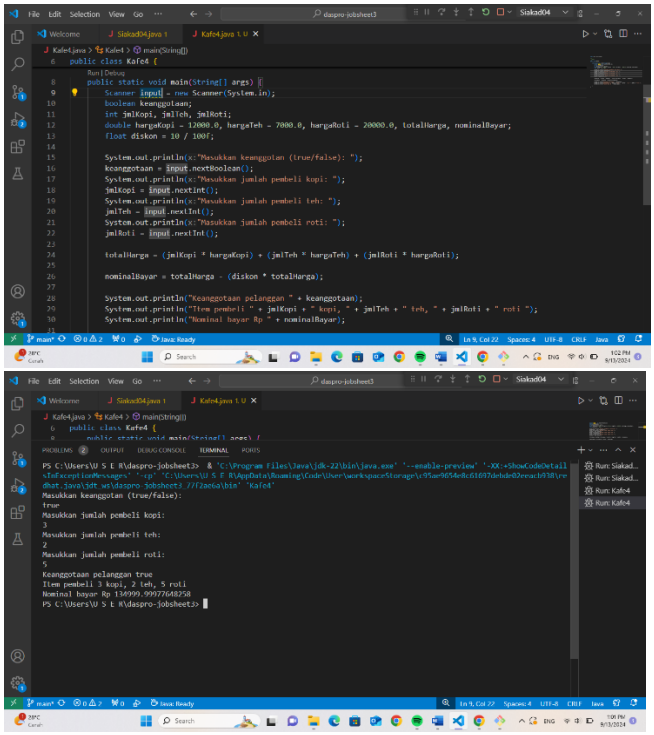


7. Commit and push program code to Github

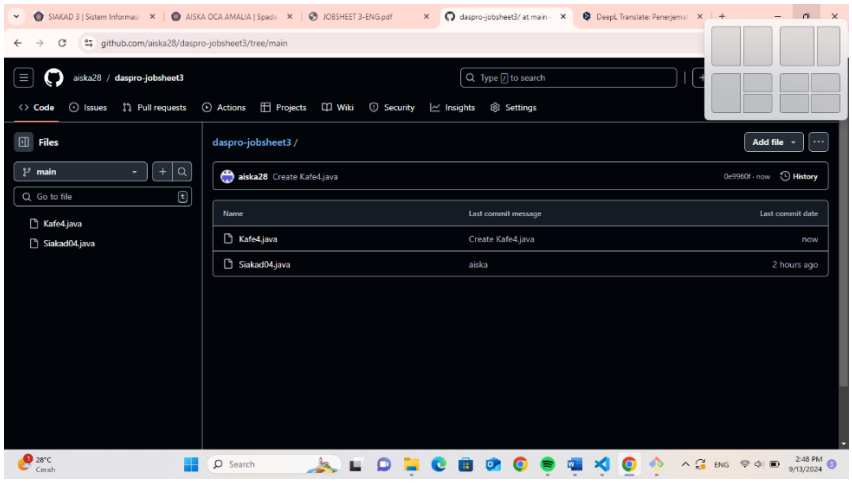
Answer:



2.2 Experiment 2: Case Study of Transactions in Cafes



11. **Commit and push program code to Github**



2.1.3 Question

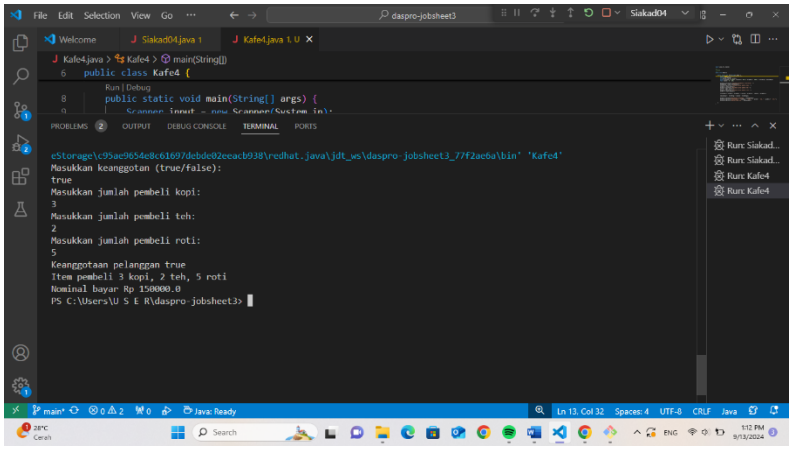
1. What does the addition of the letter 'f' mean in the initialization of the following variable?

    Float diskon = 10 / 100f;

Answer: the letter 'F' is useful for automatically processing discounts

2. What happens if the letter 'f' in question number 1 is removed? Compile and run, then compare the results before and after the removal of the 'f'!

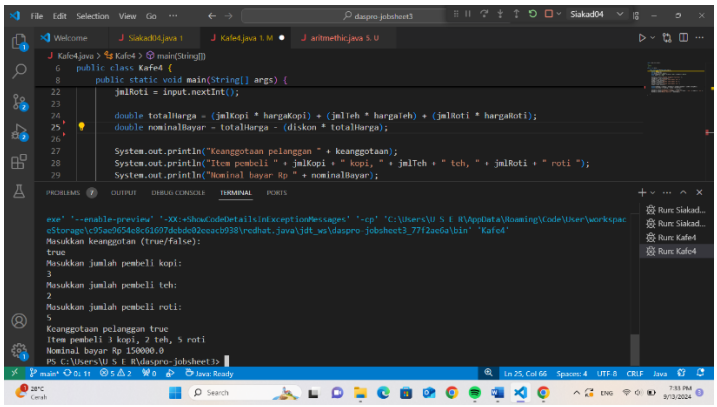
Answer:



if the letter 'f' is omitted then the discounting process will not occur automatically.

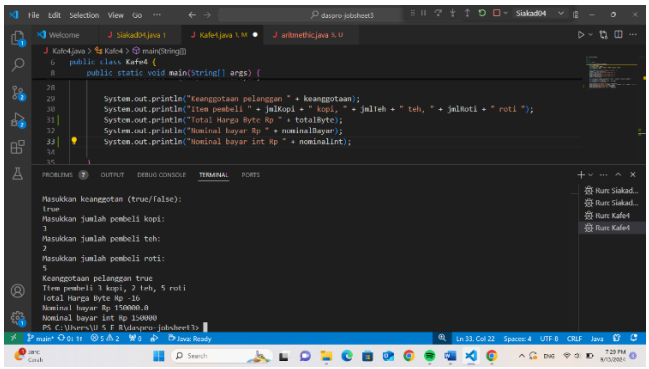
3. Add the variable nominalInt after the calculation of nominalBayar to accommodate the nominal pay with type int, then cast from double to int, and display the result!

Answer:



4. Add the totalByte variable after the calculation of the totalHarga to hold the total price by byte type, then cast from double to byte, and display the result!

Answer:



5. In question number 4, why is the result so?

Answer: by using the code it will experience doubling

6. What is the function of casting? Why is casting necessary?

Anwer: serves to change the data type of a primitive data or an object

3. Assignment

1. An electricity customer wants to know his total electricity bill. Electricity tariffs are calculated based on the amount of electricity used in kilowatt-hours (kWh). The electricity tariff is Rp 1,500 per kWh. There is a check on electricity usage whether it exceeds 500 kWh (using a relationship operator with a boolean type). Identify the inputs, outputs, and algorithms, then code the program!

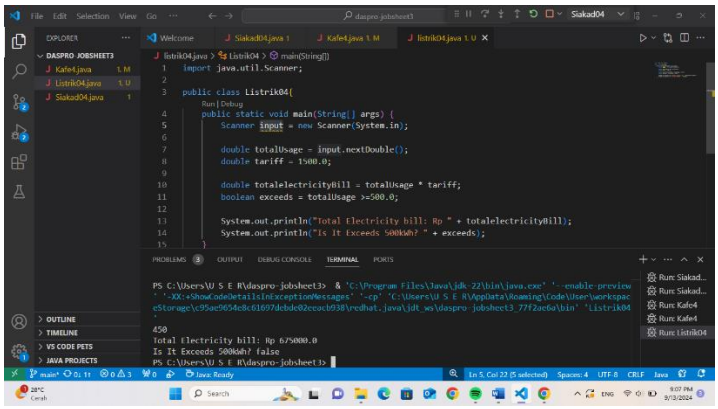
   Answer:

   Input : totalusage,tarif

   Output: total bill, exceeds

   Algoritma: Start multiplying the total usage by the previous tariff, by comparing greater or less than 500 kWh, enter the value. program successful

   Code program:



2. A company wants to create a simple program to calculate the monthly salary of its employees. Employee salaries are calculated based on the number of hours worked and hourly wages. In addition, employees also get a bonus of 10% of the total salary before tax. After that, a tax of 5% is imposed on the salary and bonus that has been calculated. Identify the inputs, outputs, and algorithms, then code the program!

   Answer:

   Input: uphBersih, uphPerjam, bonus, tag

   Output: total salary, total net salary

   Algoritma: start calculating the sum of net wage and hourly wage, then multiply by the predetermined bonus percentage and tex percentage, execute and input the values. finish stop

Code program: